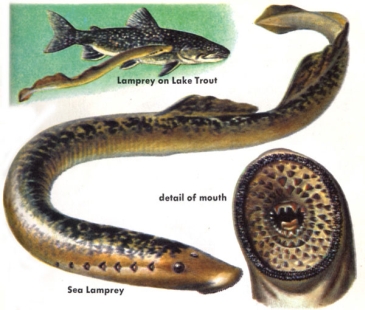
**Fish**

The 25000 known species of fish are aquatic, generally cold-blooded and gill-breathing vertebrates that swim with the aid of fins. However whereas mammals, birds, reptiles and amphibians all represent single classes of vertebrate animals within the animal kingdom there are three classes of fish, all fundamentally different from one another. They are the **jawless**, the **cartilaginous**, and the **bony fish**.

Jawless fish are the most primitive of all, the last survivors of the world’s first vertebrates lacking both scales and jaws. Dating from some 500 million years ago, only one order now remains.

Cartilaginous fish evolved about 100 million years later, ancestors of the oceans most feared predator today, the shark. As the name suggests, the skeleton of these fish is made of cartilage, a substance like gristle, which is not as hard as bone. Possessing a jaw, they also have teeth which are generally hard and sharp. Their bodies are covered with hard scales. However, they lack a feature of most bony fish – the swim bladder – which is an organ that helps to give a fish a buoyancy in the water. Pectoral fins, a tail and a characteristic flattened head help streamline this group.

Bony fish – fish with bony skeletons – appeared at the same time as cartilaginous fish. They are the most numerous group, with about 20 000 species.



AGNATHA (Jawless fish) CHONDRICHTHYS (Cartilaginous) OSTEICHTHYES (Bony)